



Robert Greene Sterne Edward J. Kessler Jorge A. Goldstein David K.S. Cornwell Robert W. Esmond Tracy-Gene G. Durkin Michele A. Cimbala Michael B. Ray Robert E. Sokohl Eric K. Steffe Michael Q. Lee Steven R. Ludwig John M. Cowert Linda E. Alcorn Robert C. Millonig Lawrence B. Bugaisky Donald J. Featherstone Michael V. Messinger Judith U. Kim Timothy J. Shea, Jr. Patrick E. Garrett Jeffrey T. Helvey Heidi L. Kraus Albert L. Ferro* Donald R. Banowit Peter A. Jackman Teresa U. Medler Jeffrey S. Weaver Kendrick P. Patterson Vincent L. Capuano Eldora Ellison Floyd Thomas C. Fiala Brian J. Del Buon Origil Lee Beaston Theodore A. Wood

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Nicole D, Dretar*
Ted J. Ebersole
Jyoti C. Iyer*
Laura A. Vogel

Registered Patent Agents*
Karen R. Markowicz
Nancy J. Leith
Matthew J. Dowd
Aaron L. Schwartz
Katrina Yujian Pei Quach
Bryan L. Skelton
Robert A. Schwartzman
Teresa A. Colella
Jeffrey S. Lundgren
Victoria S. Rutherford
Michelle K. Holoubek

Robert H. DeSelms Simon J. Elliott Julie A. Heider Mita Mukherjee Scott M. Woodhouse Michael G. Penn Christopher J. Walsh

<u>Of Counsel</u> Kenneth C. Bass III Evan R. Smith Marvin C. Guthrie

*Admitted only in Maryland *Admitted only in Virginia •Practice Limited to Federal Agencies

November 4, 2004

WRITER'S DIRECT NUMBER: (202) 772-8855 INTERNET ADDRESS: HOLOUBEK@SKGF.COM

Art Unit 2681

Commissioner for Patents PO Box 1450 Alexandria, VA 22313-1450

Re:

U.S. Non-Provisional Patent Application

Application No. 10/825,655; Filed: April 16, 2004

For: RF Mixer with High Local Oscillator Linearity Using Multiple Local Oscillator Phases

Inventors:

Gomez et al.

Our Ref:

1875.5200000

RECEIVED
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Technology Center 2600

Sir:

Transmitted herewith for appropriate action are the following documents:

- 1. Original executed Power of Attorney from Assignee;
- 2. Original executed Statement Under 37 CFR 3.73(b), along with a copy of the Notice of Recordation and recorded Assignment; and
- 3. One (1) return postcard.

It is respectfully requested that the attached postcard be stamped with the date of filing of these documents, and that it be returned to our courier. In the event that extensions of time are necessary to prevent abandonment of this patent application, then such extensions of time are hereby petitioned.

Commissioner for Patents
November 4, 2004
Page 2

MKH/jmh

The U.S. Patent and Trademark Office is hereby authorized to charge any fee deficiency, or credit any overpayment, to our Deposit Account No. 19-0036.

Respectfully submitted,

STERNE, KESSLER, GOLDSTEIN & FOX P.L.L.C.

Michelle K. Holoubek Agent for Applicants

Registration No. 54,179

330387-1





OCT 12 2004

UNITED STATES PATENT AND TRADEMARK OFFICE

Under Secretary of Commerce for Intellectual Property and Director of the United States Patent and Trademark Office (26)

RES 10/13/04

OCTOBER 07, 2004

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STERNE KESSLER GOLDSTEIN & FOX PLLC MICHELLE K. HOLOUBEK . 1100 NEW YORK AVENUE, NW WASHINGTON, DC 20005-3934



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UNITED STATES PATENT AND TRADEMARK OFFICE NOTICE OF RECORDATION OF ASSIGNMENT DOCUMENT

THE ENCLOSED DOCUMENT HAS BEEN RECORDED BY THE ASSIGNMENT DIVISION OF THE U.S. PATENT AND TRADEMARK OFFICE. A COMPLETE MICROFILM COPY IS AVAILABLE AT THE ASSIGNMENT SEARCH ROOM ON THE REEL AND FRAME NUMBER REFERENCED BELOW.

PLEASE REVIEW ALL INFORMATION CONTAINED ON THIS NOTICE. THE INFORMATION CONTAINED ON THIS RECORDATION NOTICE REFLECTS THE DATA PRESENT IN THE PATENT AND TRADEMARK ASSIGNMENT SYSTEM. IF YOU SHOULD FIND ANY ERRORS OR HAVE QUESTIONS CONCERNING THIS NOTICE, YOU MAY CONTACT THE EMPLOYEE WHOSE NAME APPEARS ON THIS NOTICE AT 703-308-9723. PLEASE SEND REQUEST FOR CORRECTION TO: U.S. PATENT AND TRADEMARK OFFICE, ASSIGNMENT DIVISION, BOX ASSIGNMENTS, CG-4, 1213 JEFFERSON DAVIS HWY, SUITE 320, WASHINGTON, D.C. 20231.

RECORDATION DATE: 04/16/2004

REEL/FRAME: 015225/0412

NUMBER OF PAGES: 3

BRIEF: ASSIGNMENT OF ASSIGNOR'S INTEREST (SEE DOCUMENT FOR DETAILS).

ASSIGNOR:

GOMEZ, RAMON A.

DOC DATE: 04/10/2004

ASSIGNOR:

HAYASHI, TAKAYUKI

DOC DATE: 04/12/2004

ASSIGNEE:

PATENT NUMBER:

BROADCOM CORPORATION 16215 ALTON PARKWAY IRVINE, CALIFORNIA 92618-3616

SERIAL NUMBER: 10825655

FILING DATE: 04/16/2004

ISSUE DATE:

TITLE: RF MIXER WITH HIGH LOCAL OSCILLATOR LINEARITY USING MULTIPLE LOCAL

OSCILLATOR PHASES

0.15225/0412 PAGE 2

MARCUS KIRK, EXAMINER ASSIGNMENT DIVISION OFFICE OF PUBLIC RECORDS

04-21-2004

(Rev. 10/02)	Y Y		U.S. DEPARTMENT OF COMMERCE U.S. Patent and Trademark Office	
To the Honorable Commissioner of Patents and Trademarks: Please record the attached original documents or copy thereof.				
1. Name of conveying party(les):		2. Name and addres	ss of receiving party(les)	
(1) Parran A. Carran and		Name: Broadcom	Corporation	
(1) Ramon A. Gomez; and (2) Takayuki Hayashi		Internal Address:		
Addition				
Additional name(s) of conveying party(les) at	tached? Yes No		10/8	
3. Nature of conveyance:		· · · · · · · · · · · · · · · · · · ·		
🖾 Assignment 🗆	J Merger	Street Address 16015 At		
☐ Security Agreement ☐	Change of Name	Street Address: 16215 Alton Parkway		
☐ Other	_			
-		Cibu I-i-	Chata and The	
Encounter Date: (1) areas		City:Irving	State: <u>CA</u> Zip: 92618-3616	
Execution Date: (1) 4/10/04; and (2) 4/12/04		Additional name(s) & address(es) attached? Yes No		
4. Application number(s) or patent n	eumber(s):	678655		
If this document is being filed together with a new application, the execution date of the application is:				
A. Patent Application No.(s)		B. Patent No.(s)		
to be assigned				
	Additional numbers att	I ached? ☐ Yes ဩ No		
		6. Total number of applications and patents involved: 1		
Name: Sterne Kessler, Goldstein & Fox P.L.L.C.		7. Total fee (37 CFR 3.41)\$40.00		
Internal Address: c/o		☑ Enclosed		
		☐ Authorized to	be charged to deposit account	
Street Address: 1100 New York Avenue, N.W.		8. Deposit account r	number:	
		19-0036		
City: Washington State: D.C.	Zlp: 20005-3934	(Attach duplicate copy	of this page if paying by deposit account)	
DO NOT USE THIS SPACE				
9. Statement and signature.				
To the best of my knowledge and belief, the foregoing information is true and correct and any attached copy is a true copy of the original document.				
Michelle K. Holoubek Name of Person Signing Signature Date				
Total number of pages including cover sheet, attachments, and documents: 3				
Mail documents to be recorded with required cover sheet information to:				

04/20/2004 KPELETE1 00000010 10825655

Commissioner of Patents & Trademarks, Box Assignments
Washington, D.C. 20231

04 FC:8021

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ASSIGNMENT

In consideration of the sum of One Dollar (\$1.00) or equivalent and other good and valuable consideration paid to each of the undersigned inventors: (1)Ramon A. Gomez: and (2) Takayuki Hayashi, the undersigned inventor(s) hereby sell(s) and assign(s) to Broadcom Cornoration (the Assignee) his/her entire right, title and interest, including the right to sue for past infringement and to collect for all past, present and future damages:

check applicable box(es)

☐ for the United States of America (as defined in 35 U.S.C. § 100), ☐ and throughout the world.

(a) in the invention(s) known as RF Mixer with High Local Oscillator Linearity Using Multiple Local Oscillator Phases for which application(s) for patent in the United States of America has (have) been executed by the undersigned on (1) 4/0/04;
(2) 4/12/04 (also known as United States Application No. To be assigned, filed Herewith), in any and all applications thereon, in any and all Letters Patent(s) therefor, and

X74/16/04

- (b) in any and all applications that claim the benefit of the patent application listed above in part (a), including continuing applications, reissues, extensions, renewals and reexaminations of the patent application or Letters Patent therefor listed above in part (a), to the full extent of the term or terms for which Letters Patents issue, and
- (c) in any and all inventions described in the patent application listed above in part (a), and in any and all forms of intellectual and industrial property protection derivable from such patent application, and that are derivable from any and all continuing applications, reissues, extensions, renewals and reexaminations of such patent application, including, without limitation, patents, applications, utility models, inventor's certificates, and designs together with the right to file applications therefor, and including the right to claim the same priority rights from any previously filed applications under the International Agreement for the Protection of Industrial Property, or any other international agreement, or the domestic laws of the country in which any such application is filed, as may be applicable:

all such rights, title and interest to be held and enjoyed by the above-named Assignee, its successors, legal representatives and assigns to the same extent as all such rights, title and interest would have been held and enjoyed by the Assignor had this assignment and sale not been made.

The undersigned inventor(s) agree(s) to execute all papers necessary in connection with the application(s) and any continuing (continuation, divisional, or continuation-in-part), reissue, reexamination or corresponding application(s) thereof and also to execute separate assignments in connection with such application(s) as the Assignee may deem necessary or expedient.

The undersigned inventor(s) agree(s) to execute all papers necessary in connection with any interference or patent enforcement action (judicial or otherwise) related to the application(s) or any continuation, divisional, or continuation-in-part), reissue or reexamination application(s) thereof and to cooperate with the Assignee in every way possible in obtaining evidence and going forward with such interference or patent enforcement action.

Page 1 of 2

The undersigned inventor(s) hereby represent(s) that he/she has full right to convey the entire interest herein assigned, and that he/she has not executed, and will not execute, any agreement in conflict therewith.

The undersigned hereby grant(s) James D. Bennett, Registration No. 37,550, Jeffrey DeRoy Wheeler, Registration No. 39,066; Noel Benjamin Whitley, Registration No. 42,225; and Harry Shannon Tyson, Jr., Registration No. 42,193, of Broadcom Corporation, 16215 Alton Parkway, Irvine, CA 92618-3616, and Robert Greene Sterne, Esquire, Registration No. 28,912; Edward J. Kessler, Esquire, Registration No. 25,688; Jorge A. Goldstein, Esquire, Registration No. 29,021; Carrier, Registration Registration No. 31,944; Robert W. Esmond, Esquire, Registration No. 32,893; Tracy-Gene G. Durkin, Esquire, Registration No. 32,831; Michaele A. Cimbala, Esquire, Registration No. 33,851; Michael B. Ray, Esquire, Registration No. 33,997; Robert E. Sokohl, Esquire, Registration No. 36,013; Erio K. Steffe, Esquire, Registration No. 36,683; Michael Q. Lee, Esquire, Registration No. 35,239; Steven R. Ludwig, Esquire, Registration No. 36,203; John M. Covert, Esquire, Registration No. 38,759; Linda E. Alcorn, Esquire, Registration No. 39,588; Lawrence B. Bugaisky, Esquire, Registration No. 35,086; Donald J. Featherstone, Esquire, Registration No. 33,876; Robert C. Millonig, Esquire, Registration No. 34,395; Michael V. Messinger, Esq., Registration No. 37,575; Judith U. Kim, Esq., Registration No. 40,679; Timothy J. Shea, Jr., Esq., Registration No. 41,306; and Patrick E. Gerrett, Esq., Registration No. 39,987; all of STERNE, KESSLER, GOLDSTEIN & FOX P.L.L.C., 1100 New York Avenue, N.W., Washington, D.C. 20005-3934 power to insert in this assignment any further identification that may be necessary or desirable in order to comply with the rules of the United States Patent and Trademark Office for recordation of this document.

IN WITNESS WHEREOF, executed by the undersigned inventor(s) on the date opposite his/her name.

Date: 4/10/04

Signature of Inventor.

Ramon A. Gomes

Date: 4/12/04

Signature of Inventor

Takayuki Hayashi

245916

Page 2 of 2

RECORDED: 04/16/2004

PATENT REEL: 015225 FRAME: 0414

Docket No. 1875.5200000

ASSIGNMENT

In consideration of the sum of One Dollar (\$1.00) or equivalent and other good and valuable consideration paid to each of the undersigned inventors: (1)Ramon A. Gomez; and (2) Takayuki Hayashi, the undersigned inventor(s) hereby sell(s) and assign(s) to Broadcom Corporation (the Assignee) his/her entire right, title and interest, including the right to sue for past infringement and to collect for all past, present and future damages:

check applicable box(es)

✓ for the United States of America (as defined in 35 U.S.C. § 100),
 ✓ and throughout the world,

(a) in the invention(s) known as <u>RF Mixer with High Local Oscillator Linearity Using Multiple Local Oscillator Phases for which application(s) for patent in the United States of America has (have) been executed by the undersigned on (1) 4/10/04; (2) 4/12/04 (also known as United States Application No. <u>To be assigned</u>, filed <u>Herewith</u>), in any and all applications thereon, in any and all Letters Patent(s) therefor, and</u>

X/4/16/04

- (b) in any and all applications that claim the benefit of the patent application listed above in part (a), including continuing applications, reissues, extensions, renewals and reexaminations of the patent application or Letters Patent therefor listed above in part (a), to the full extent of the term or terms for which Letters Patents issue, and
- (c) in any and all inventions described in the patent application listed above in part (a), and in any and all forms of intellectual and industrial property protection derivable from such patent application, and that are derivable from any and all continuing applications, reissues, extensions, renewals and reexaminations of such patent application, including, without limitation, patents, applications, utility models, inventor's certificates, and designs together with the right to file applications therefor; and including the right to claim the same priority rights from any previously filed applications under the International Agreement for the Protection of Industrial Property, or any other international agreement, or the domestic laws of the country in which any such application is filed, as may be applicable;

all such rights, title and interest to be held and enjoyed by the above-named Assignee, its successors, legal representatives and assigns to the same extent as all such rights, title and interest would have been held and enjoyed by the Assignor had this assignment and sale not been made.

The undersigned inventor(s) agree(s) to execute all papers necessary in connection with the application(s) and any continuing (continuation, divisional, or continuation-in-part), reissue, reexamination or corresponding application(s) thereof and also to execute separate assignments in connection with such application(s) as the Assignee may deem necessary or expedient.

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Docket No. 1875.5200000

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IN WITNESS WHEREOF, executed by the undersigned inventor(s) on the date opposite his/her name.

Date:	4/10/04	Signature of Inventor: Ramon A. Gomes
Date:	4/12/04	Signature of Inventor. Takayuki Hayashi